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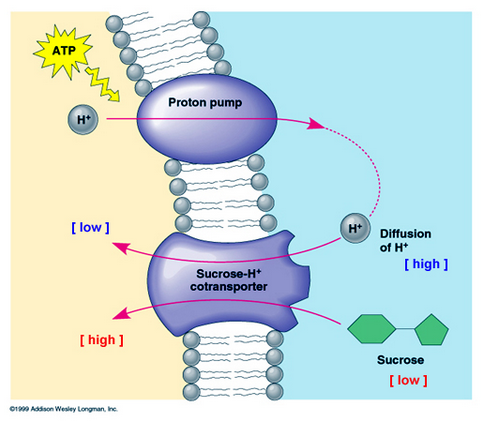
**Cell Transport Critical Thinking Questions**

Ms. Ottolini, AP Biology

1. Read through the section of your notes on membrane structure and answer the following question on a separate sheet of paper.

What are two adaptations relating to cell membrane structure that might enable the cell membranes of winter plants to stay flexible (aka fluid) even in cold temperatures?

1. Read through the section of your notes on active transport and answer the following question on a separate sheet of paper.



How will decreasing the extracellular (outside the cell) pH affect the amount of sucrose transported into the cell?

1. Read through the section of your notes on facilitated diffusion and osmosis and answer the following question on a separate sheet of paper.

Cystic fibrosis is a recessively inherited disorder that results from a mutation in the gene encoding CFTR chloride ion channels located on the surface of many epithelial cells.

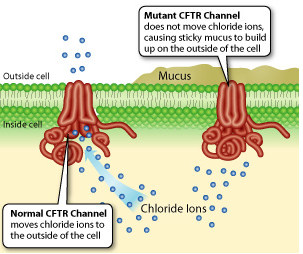


Image courtesy of: learngenetics.utah.edu

How does the CFTR channel’s inability to transport chloride ions from the inside of the cell to the extracellular fluid result in “dehydrated” mucus (i.e. mucus with a very low concentration of water).